Vehicle Tactical Engagement Simulation System (VTESS)

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PM LTS
23 February 2015

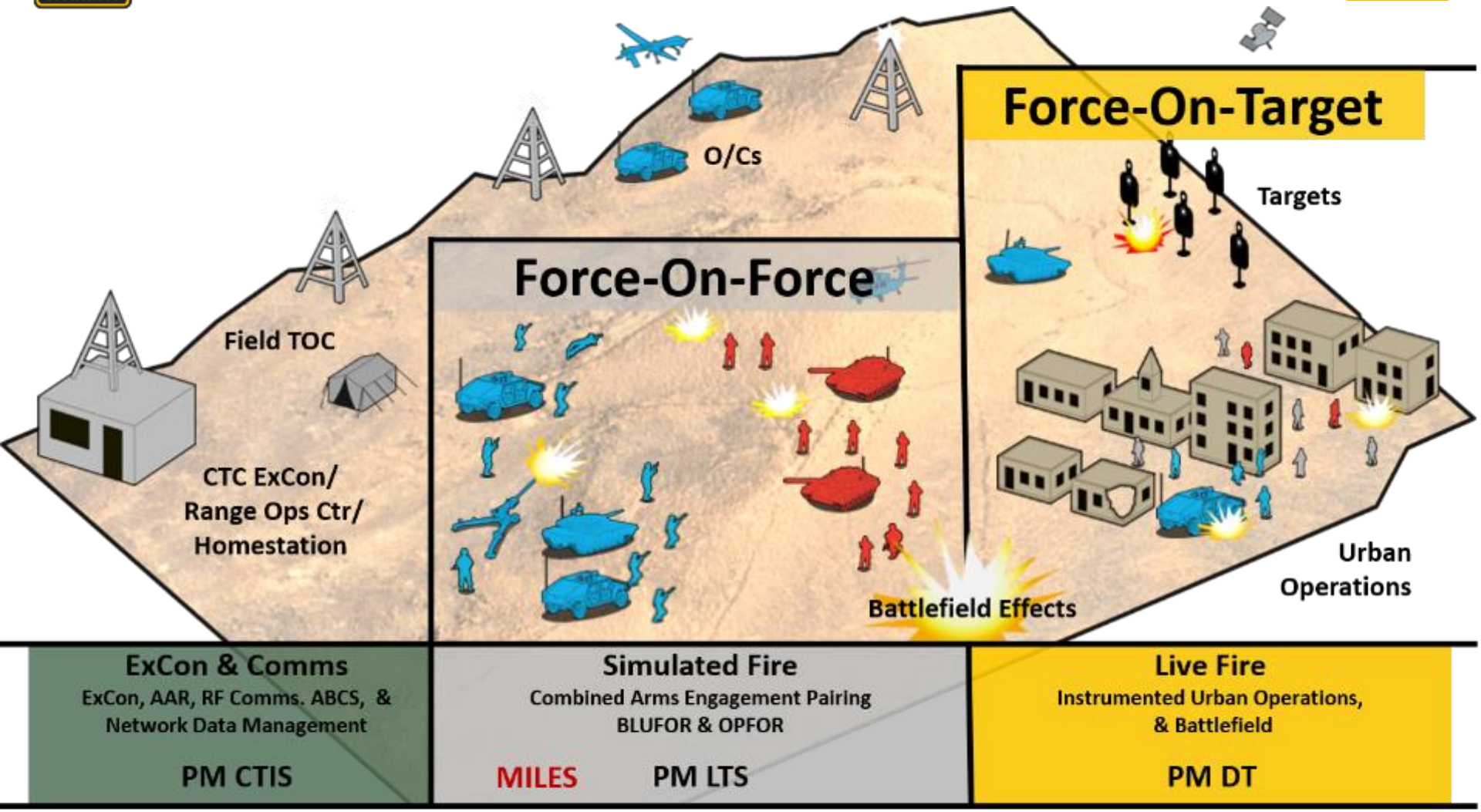
Agenda

- VTESS Team.
- Live Training Lines of Operation.
- Business Case Planning Map.
- ***Draft*** Schedule.
- Sources Sought Ground Rules.
- Why VTESS.
- Statement of Need / Requirements.
- Program Description.
- Product Line Approach.
- ***Draft*** Acquisition Strategy.
- What's Important.
- Potential Demonstrations.
- Testing.
- Logistics.
- LT2 Portal.
- Questions.

VTESS Team

- LTC Hemingway - PM LTS.
- Dave Brunat - APM I-MILES.
- Gloria Bailey - Contracting Officer.
- Kyle Platt - Project Director.
- Marnita Harris - Contract Specialist.
- Maureen Llerandi - Logistician.
- Jesse Campos - Chief Engineer.
- Pat Sincebaugh - Engineer.
- George Herrington - Project Coordinator (S).
- Douglas Geis - Capability Manager, TCM-L.

Live Training Lines of Operation



LT2 Standards Management (CTIA, LT2 TESS, FASIT) - APM TRADE

Business Case Planning Map

Program Development Timeline Estimates and Information Release Terminology

We are here!

1 Request For Information (RFI) Market Research

- ✓ Initial Investigation of Industry Base Capability
- ✓ Limited Technical/ Business Case Information to Frame Investigation
- ✓ Phone Calls, Open House, Contractor Plant Visits, etc...

2 Sources Sought

- ✓ 1st Draft Technical Documentation for Industry Comment
- ✓ Draft Business Case Information
- ✓ Industry Exchange

3 PM Strategic Review

Special Notice (tech. package update to Industry)

- ✓ Finalized Technical Documentation Specification, SOW, & CDRLS
- ✓ B, L, M not Established
- ✓ Business Case Information

Consistency & Quality

PALT Timeline Begins

4 Draft RFP (Sections A-M)

- ✓ Complete Draft RFP
- ✓ Industry Day with 1-on-1s

5 Acq. Center SRB

Final RFP

6 Proposals Due

Market Research Phase – PM Office Managed			RFP Phase – Acquisition Center Managed		
Open Discussions No Information Sharing	Open Discussions - Info Sharing Reflected In Req. Docs. Update w/Change Highlights	Open Discussions -- Info Sharing Reflected In Draft RFP w/Change Highlights	All Questions in Writing thru Contracting POC - Responses Published to All Offerors		
Due in ~ ... ...D~270 Rough Planning Guide Proposal	D~180	D~120	D~90	D~60/45	D-0

Approximate Timelines Adjusted +/- Based on Program Complexity

Draft Schedule

- LTEC/LT2 PAN Enabled TVS Demonstration - 30/31 March 2015.
- LTEC Developers Conference #3 - 1-3 April 2015.
- PALT Initiated - 13 April 2015.
- Special Notice To Industry - 20 April 2015.
- Draft RFP - 6 July 2015.
- Final RFP - 25 August 2015.
- Contract Award - 23 May 2016.
- First Fielding - Q3FY18.
- Final Fielding - Q4FY19.

Schedule will be updated once PALT is initiated.

Sources Sought Ground Rules

- A Sources Sought is used to strengthen the Government's market research position, while also sharing the draft requirements package to solicit industry input and eliminate ambiguity and confusion.
- PM TRADE's second formal announcement of intent to acquire a product or service.
  - Sources Sought is a tool to help both the project team and industry.
  - Open discussions during one-on-one's.
  - Free flow of information using the published **draft** SOW and SPEC.
  - Direct communications with team members during Market Research Phase is encouraged.
- The project team has already refined the acquisition strategy and the Requirements Package from the RFI, we will continue to do so after this week's activities.

Why VTESS?

2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023

New contract needed to complete BOI

VTESS

BOI Complete

Contract action required in FY16 timeframe

- One configuration that works on both Tactical and Combat Vehicles.
- Componentized Solution & LTEC.
  - Procurement Advantage.
  - Promotes Embedded Training.
  - Lowers Sustainment Costs.
- Government owned interfaces (e.g. LT2 PAN).
- PM TRADE business development decision.
  - LT2 Core Asset Management Process for Hardware.
  - Capitalize off the lessons learned and success of LT2 Software process/architecture (CTIA, etc).
  - Use Component Agreements for both Hardware and Software.
- Supports for Technology & Capability Insertion at reduced cost while minimizing TESS variation.

VTESS will need to be completely fielded by the end of FY19.

Statement of Need / Requirements

- MILES 2000 ORD, CARDS# 0291, date 11 July 1996.
- LT2-Family of Training Systems (FTS) Initial Capabilities Document (ICD), CARDS# 2522, date: 11 August 2005.

Kit Type	Component Type								Kit Qty																		
Kit Type	Base (Target Kit)	SRLT	MRLT	LRLT	VIM	WUI	ATWESS	Audio Cue	Base	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9	Option 10	Option 11	Option 12	Option 13	Option 14	Option 15	Option 16	Option 17	Option 18	Total
Target	x								568	2109	2109	2109	2109	0	0	0	0	0	0	0	0	0	0	0	0	0	9004
Shooter			x						0	0	0	0	0	0	0	500	500	500	500	0	0	0	0	0	0	0	0	2000
Abrams	x	x	x	x	x	x			6	0	0	0	0	0	0	0	0	0	0	78	78	0	0	0	0	0	162
Bradley	x			x	x	x	x	x	14	0	0	0	0	0	0	0	0	0	0	0	0	159	159	0	0	0	332
MGS	x	x	x	x	x	x			5	0	0	0	0	138	0	0	0	0	0	0	0	0	0	0	0	0	143
ATGM	x		x	x	x	x	x	x	5	0	0	0	0	0	78	0	0	0	0	0	0	0	0	0	0	0	83
Stryker	x	x	x	x			x	x	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	637	637	637	637	2548
Components In Base	598	11	16	30	30	30	19	19																			

Option Year - Option Mapping			
Option Year 1	Option Year 2	Option Year 3	Option Year 4
Option 1	Option 2	Option 3	Option 4
		Option 5	Option 6
Option 7	Option 8	Option 9	Option 10
		Option 11	Option 12
		Option 13	Option 14
Option 15	Option 16	Option 17	Option 18

9,004 Target Kits *MUST* be fielded by Q4FY19.

Program Description

- VTESS MILES production effort leveraging the LT2 TESS Component Architecture.
- Key documentation provided with Sources Sought Notice.
- VTESS will use the Live Training Engagement Composition (LTEC).
  - Currently configuration managed as a single Configuration Item (CI).
  - Will be broken out to align with LT2 software product line configuration management strategy by Draft RFP.
- VTESS will use the Live Training Transformation (LT2) Player Area Network (PAN).
  - PRF-PT-00549 rev. D, PRF-PT-00617 V1.0, and PRF-PT-00635 V1.0.
- Laser Interoperable with legacy MILES devices.

Same MILES functionality, just standardizing Interfaces & Core Engagement Software

Program Description

- Support for both Tactical and Combat Vehicle (CV) capability sets.
- Support normal engagement techniques without negative training or degradation to Fire Control System functionality.
- Proper engagement effects of weapon types.
- Proper replication of target hit profile.
- Instrumentation System (IS) integration.

Product Line Approach

- Modular Open System Architecture (MOSA) using LT2 Component Architecture documentation.
- Each device within the Component Architecture will need a HCA.
- VTESS HCAs and System Composition Agreement (SCA) are LT2 Core Assets - CPM Operations Guide is required to be followed.
- Draft HCAs exist for many of the devices, and are at varying levels of maturity.
  - VTESS OEM will deliver HCAs as CDRLs.
  - VTESS OEM will support 3rd party HCA validation.
  - CDRLs in RFP will likely state DI-ADMN-80925 / Revision to existing Government Documents.
- HCAs need to be designed to explain to a vendor how to produce a form-fit-function replacement.
  - **NOT** build to print.

Draft Acq. Strategy Summary

- Contract Vehicle: To Be Determined (TBD) – *Need production option flexibility.*
- Contract Type: Likely a mix of multiple types with incentives where appropriate.
  - Initial Year: Multiple Incentivized Non-Reoccurring Engineering (NRE) lines.
    - 1st Article for kits for Base Kit and Digital Platform.
    - Hardware Component Agreements (HCA) documentation and Component verification.
    - Logistics, CM, remote CM, and supportability implementation.
  - Follow-on Years: One NRE line per year with potential for multiple production options.
  - Additional CLINs: Qualitative // e.g. Graphical User Interface (GUI) design and TM modifications.
- Approximate Funding: ~ $200M
- Testing: System Level and Component Level.
- Period Of Performance: Options must be exercised within 5 Years of the award date.

What's Important

- **A functioning system.**
- LT2 Component Architecture, LTEC, and LPAN alignment.
- Simplicity of Installation, Setup, Use and Maintenance.
- Production Capacity.
- HCA Documentation completeness to enable form/fit/function component replacement.
- VTESS Scalability (LTEC PDSS/Evolution, new sensors/stimulators for future capability insertion – e.g. UAS, Mounted Mortars and/or Artillery).

Potential Demonstrations

- MILES Laser Pairing Demonstration.
  - Using contractors existing lasers and detectors in live operational environment.
  - No LTEC or LPAN integration required demo.
  - Verify bore sight retention, beam profile, and correct MCC code (lab).
  - >1000 engagements with blank rounds.
  - Likely in Central Florida area.
- Production Capability and Capacity.
  - >7000 vehicle kits may be required to be produced per year.
  - Production site visit to evaluate process and capacity.

Please provide recommended production verification metrics during 1-on-1 sessions.

Testing

- Typical MILES testing with enhanced component testing/validation.
- Inclusion of 3rd party validation event.
  - Ensures HCAs represent the as-built configuration.
- VTESS GAT will be monitored by the Army Test and Evaluation Command.
  - Soldier use event.
  - ATEC will be in a pure data collection mode.

Logistics

- PM LTS: The default means of sustainment will be Organic, unless deemed fiscally inappropriate.
  - Organic vs. Contractor Logistics Support Cost Benefit Analysis is ongoing.
  - The RFP will delineate Contractor Logistics Support (CLS) requirements for VTESS. Organic sustainment may be an ECP in the future.

LT2 Portal

Practical Exercise:

Question: How do I get access to the LT2 Portal, where are the LTEC software and the documents referenced in the SOW and SPEC?

Answer: We've made it ***EASY***. We created a VTESS Collaboration Area consolidating all of the applicable documentation. We'll also point you in the right direction for LTEC software and then explain the path ahead.

….Let's see how it's done.

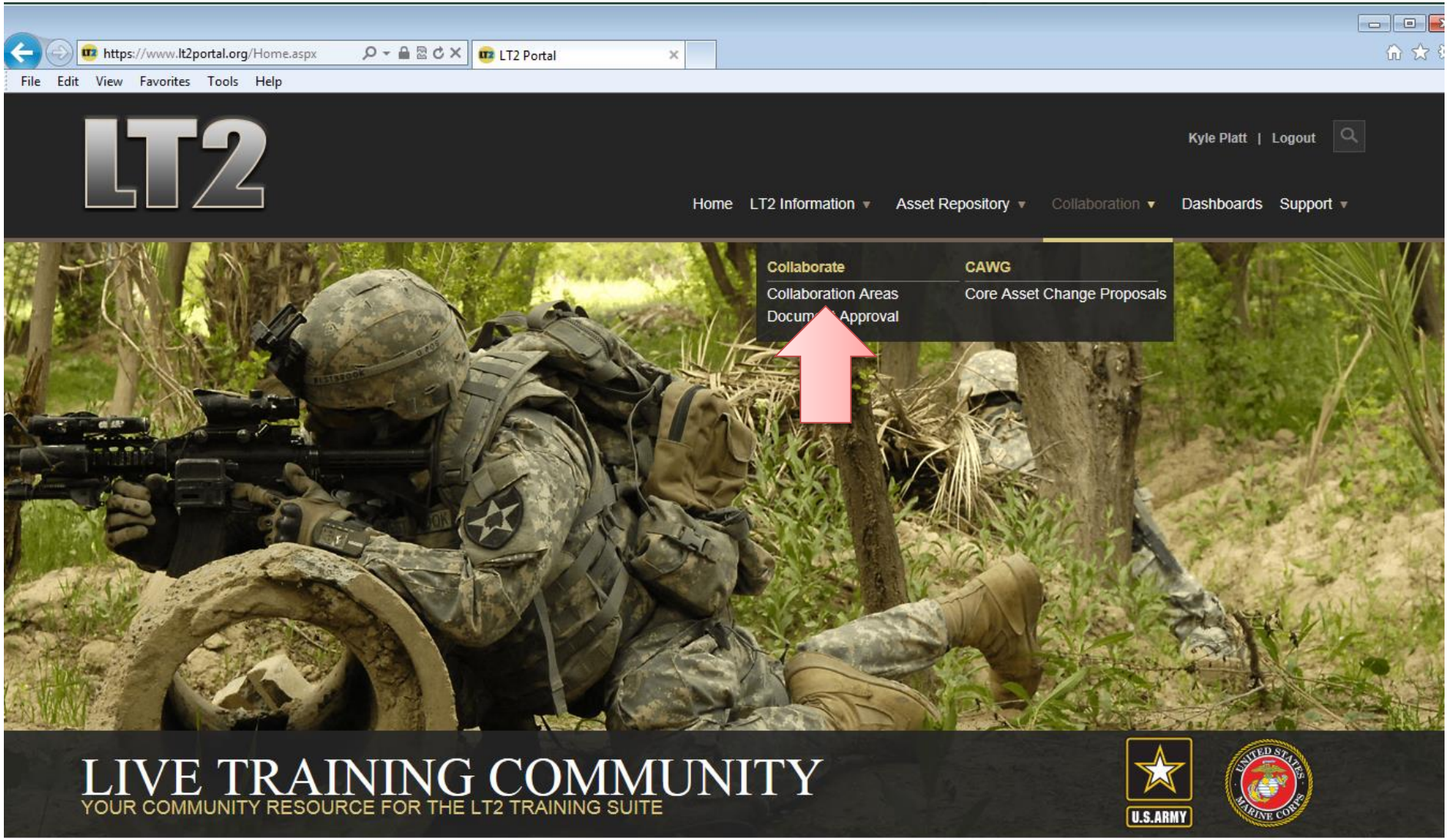
LT2 Portal – Reference Documents

Not Available

WELCOME

Welcome to the Live Training Community portal, where we develop, support, and communicate our live training initiatives for the Army and Marine Corps. Our intent is to facilitate communication with developers, users, and our industry partners to support standards and common solutions

LT2 Portal – Reference Documents



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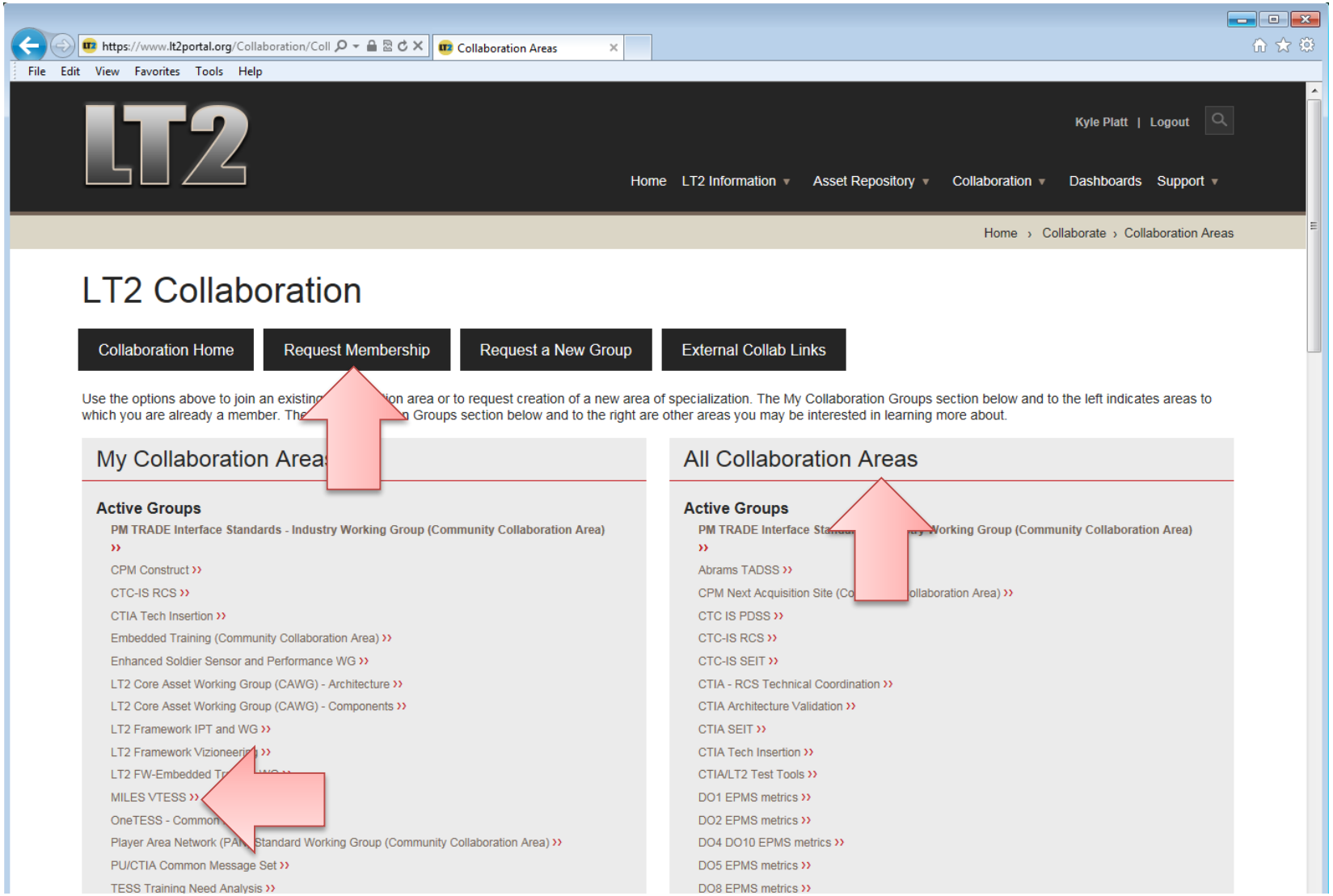

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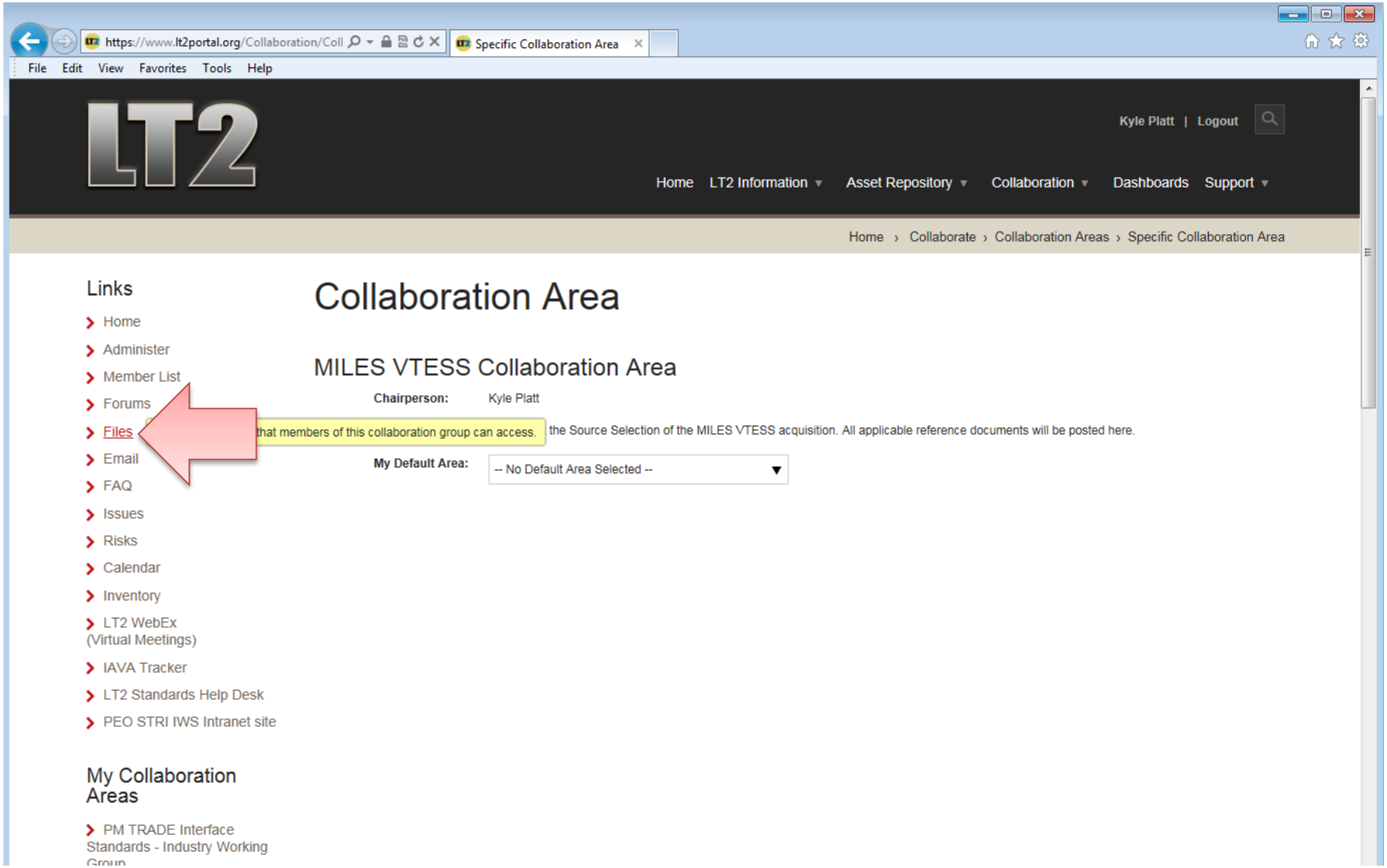

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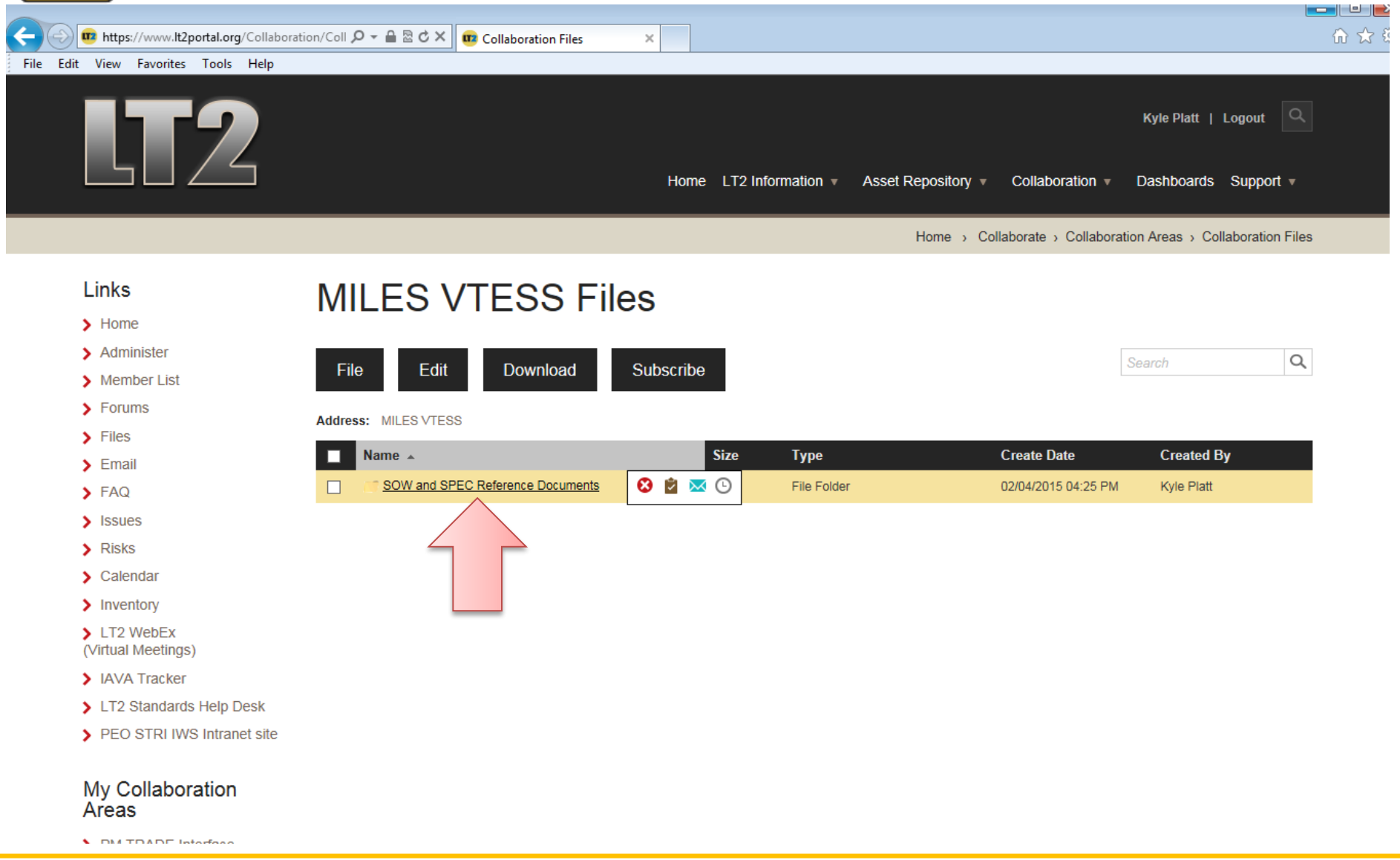

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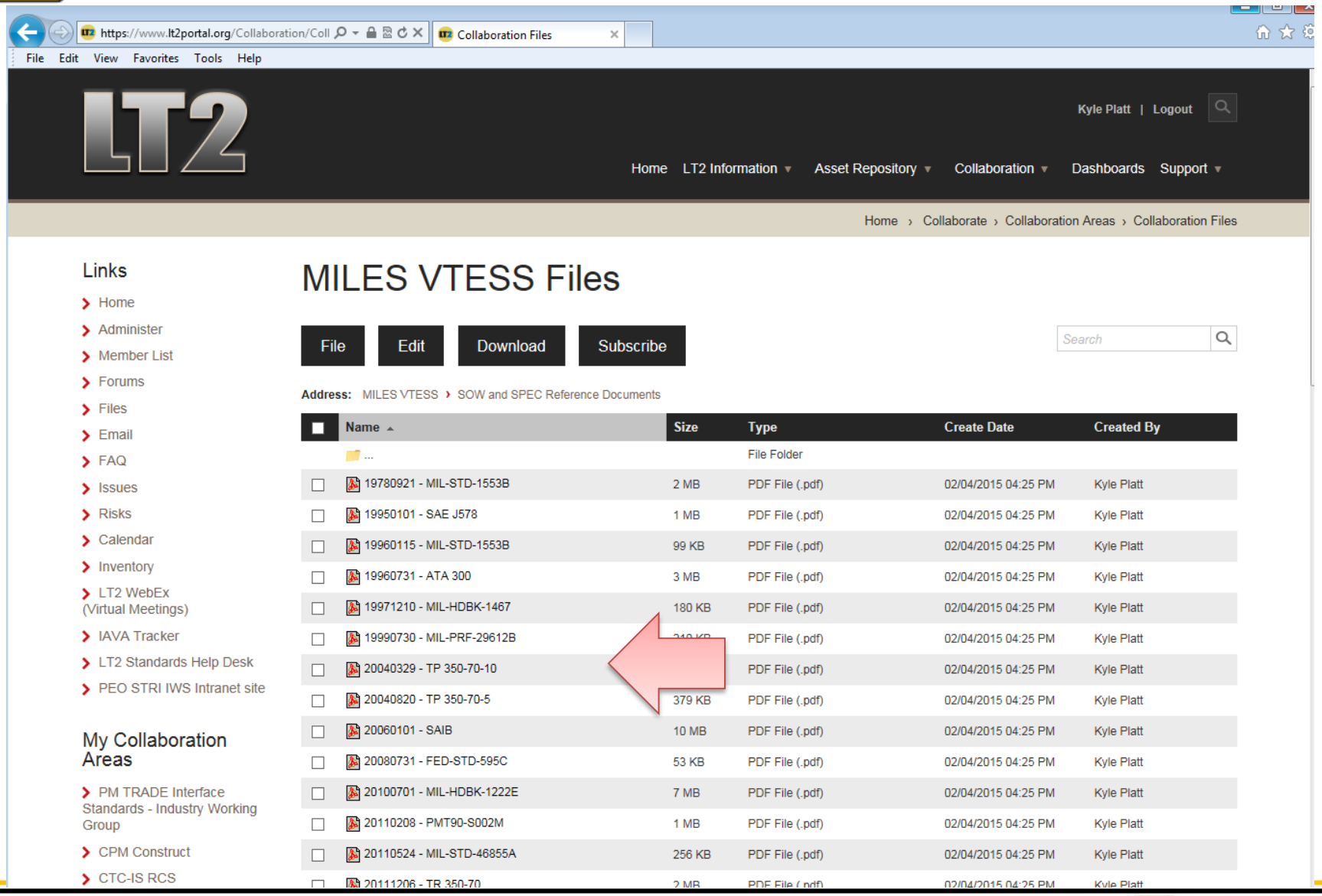
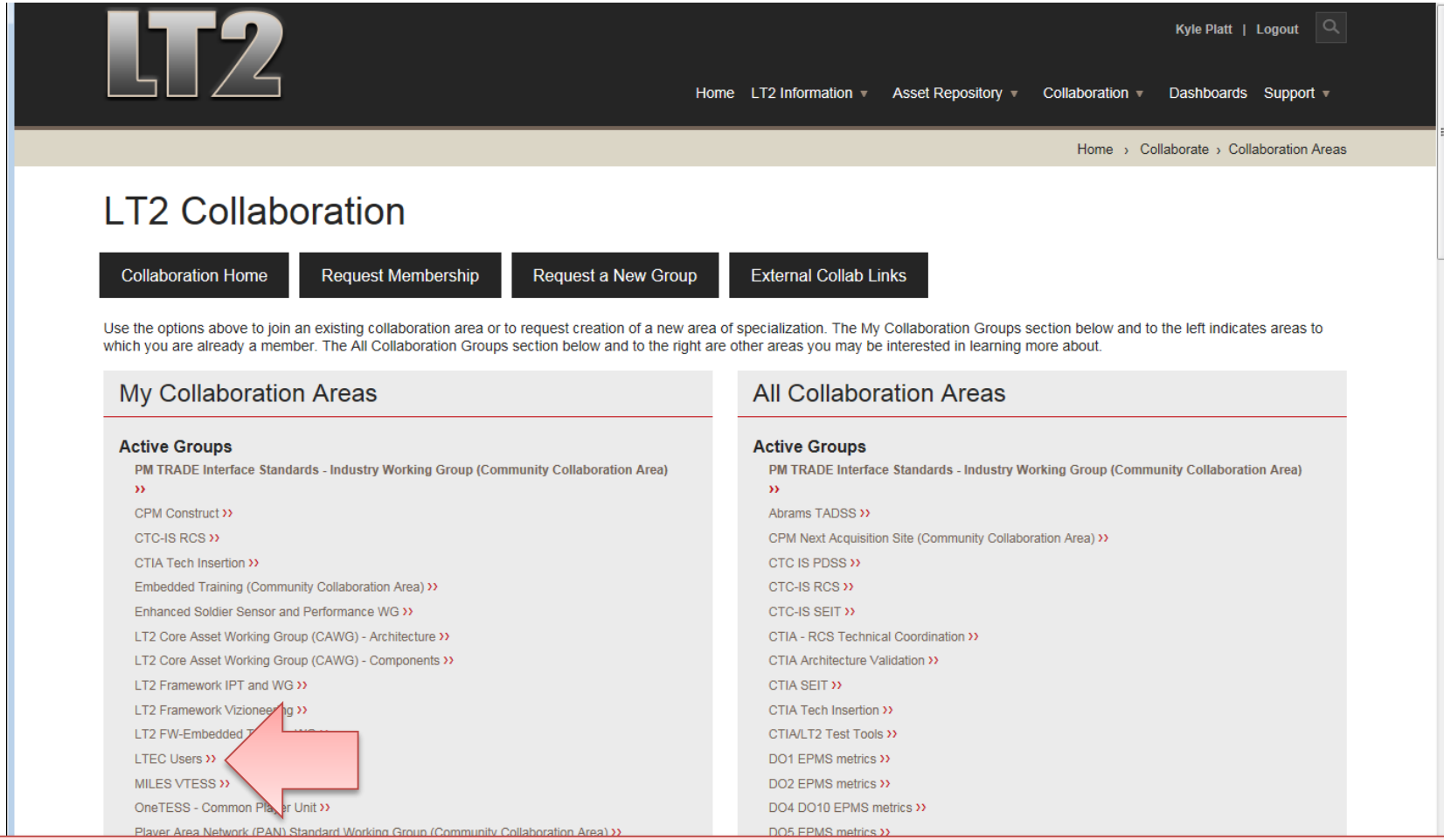
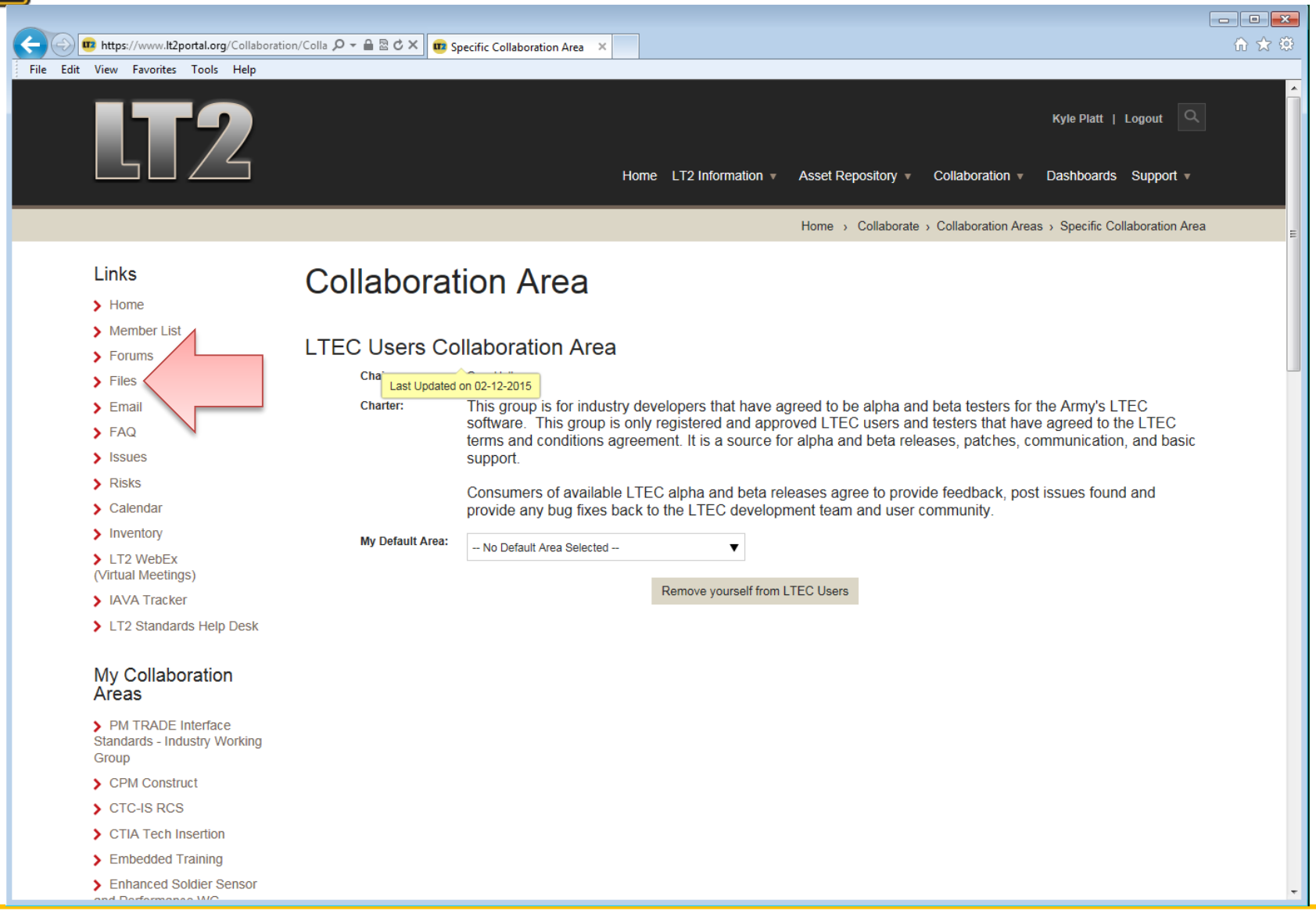


LT2 Portal – LTEC



- ✓ **LTEC will be integrated into the PLAF by Draft RFP.**
- ✓ **Details provided at LTEC Developers Conference 1-3 April 2015**

LT2 Portal – LTEC



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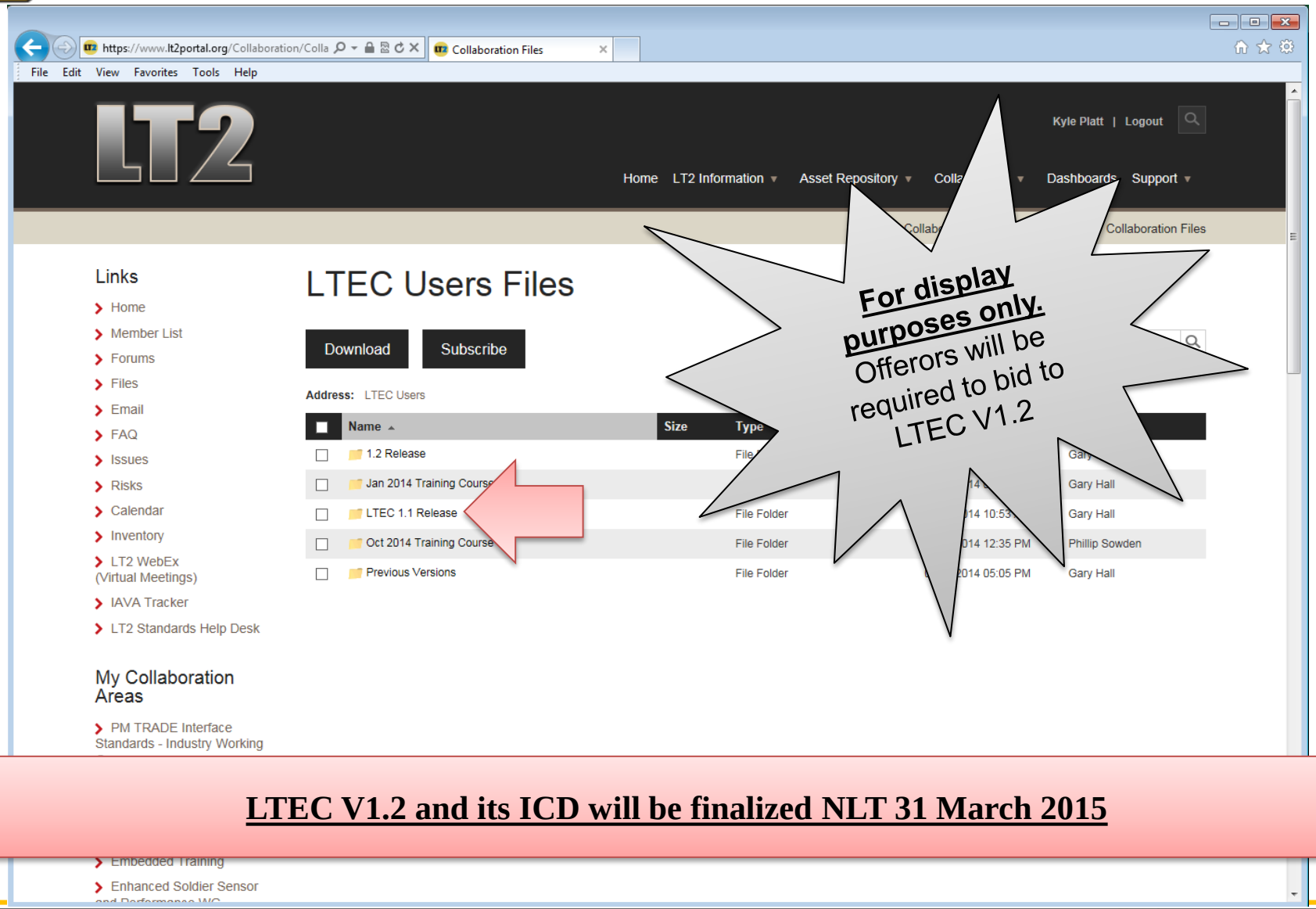
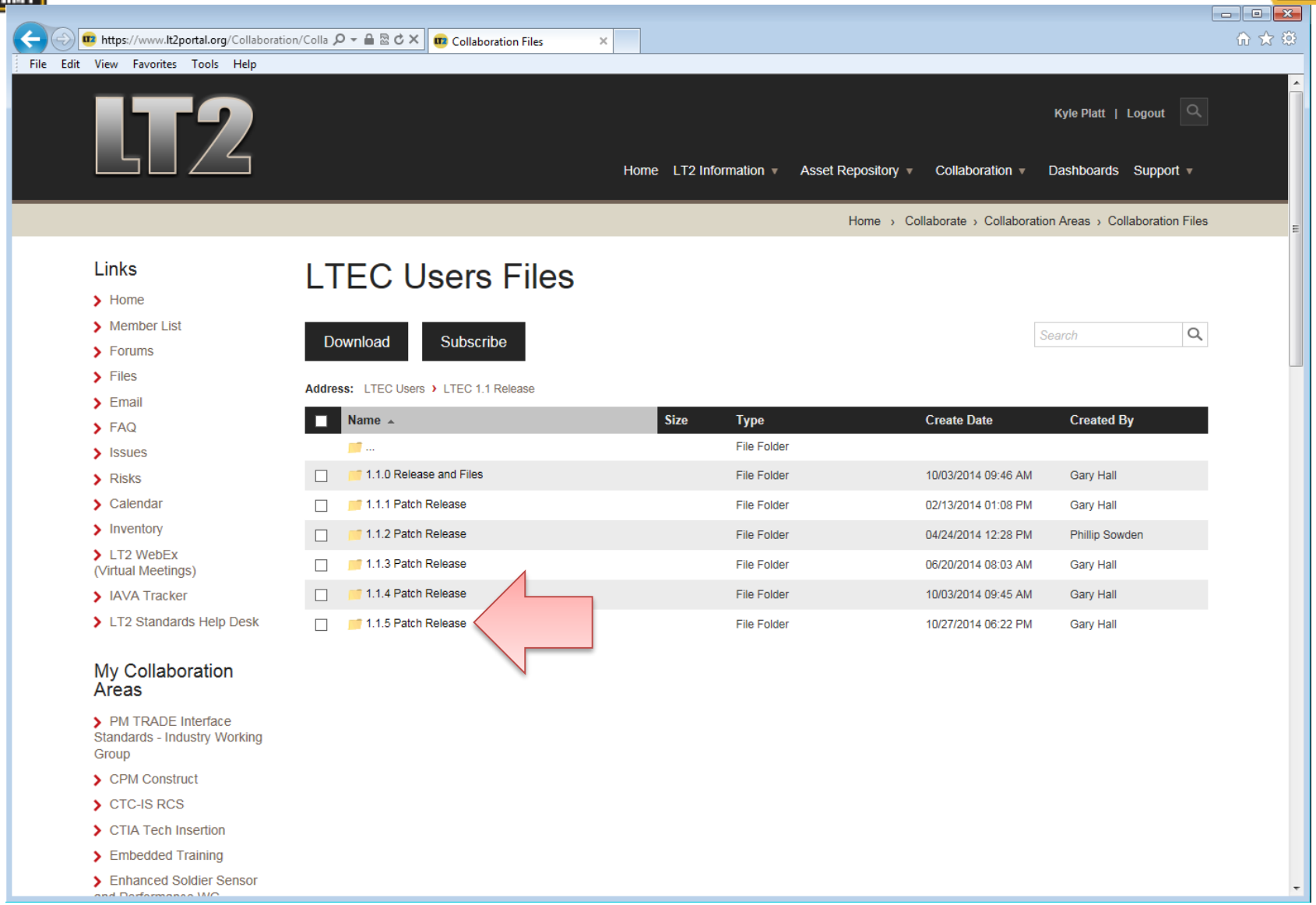


LTEC V1.2 and its ICD will be finalized NLT 31 March 2015

LT2 Portal – LTEC



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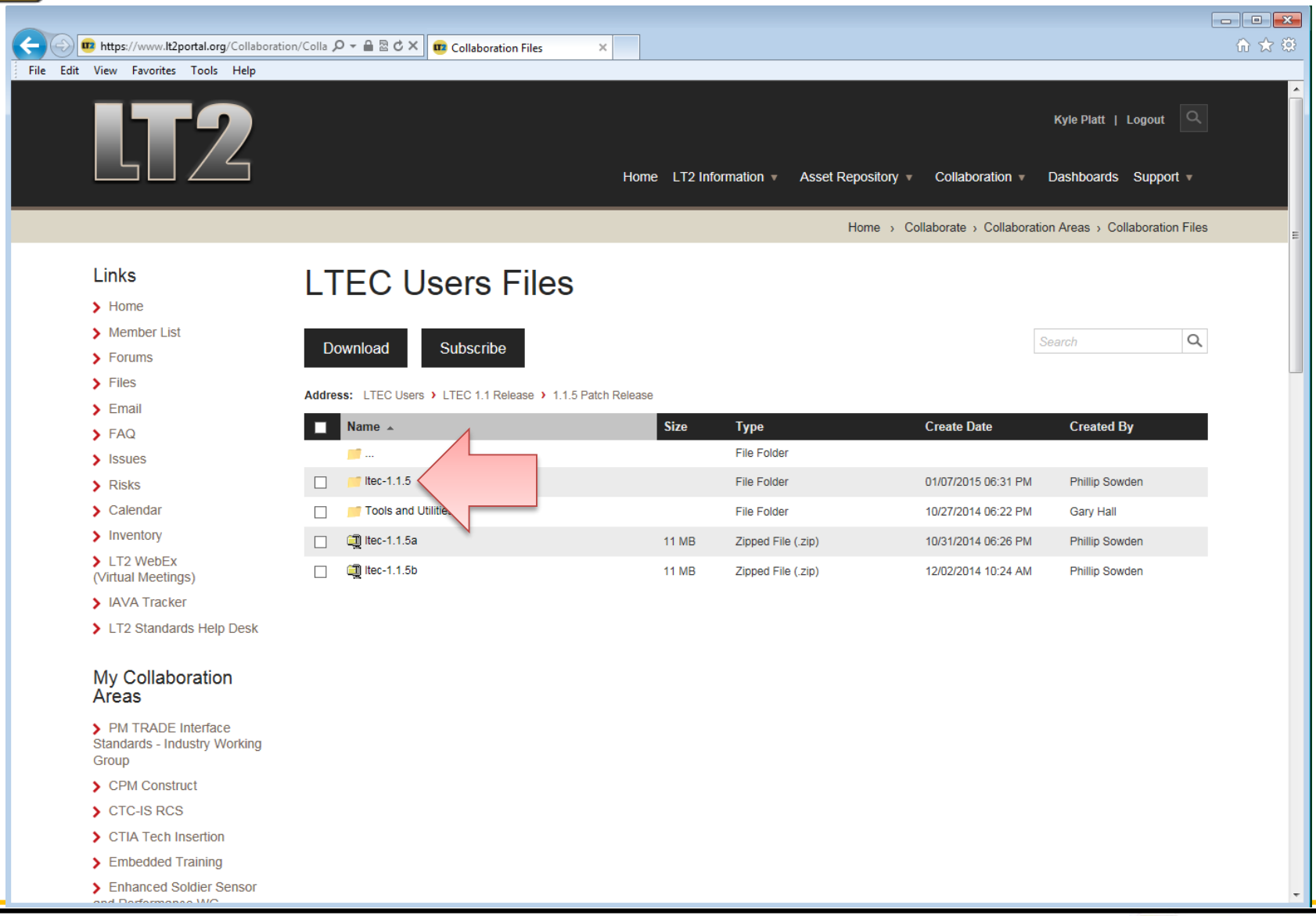

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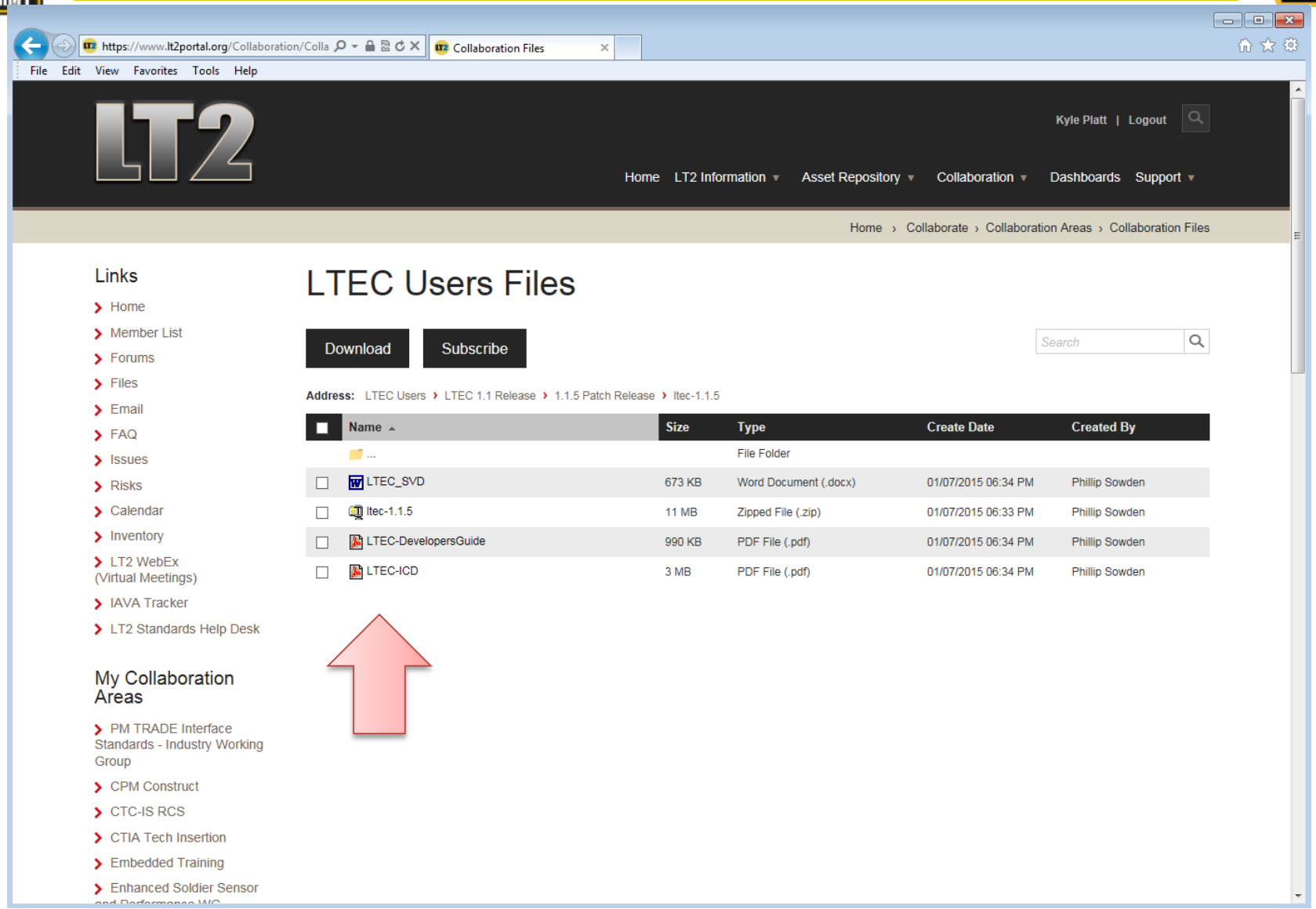

Questions

One on One sessions *after lunch!*

Backup